



Annual Review of
Plant Biology
Volume 58, 2007

Contents

Frontispiece	
<i>Diter von Wettstein</i>	xii
From Analysis of Mutants to Genetic Engineering	
<i>Diter von Wettstein</i>	1
Phototropin Blue-Light Receptors	
<i>John M. Christie</i>	21
Nutrient Sensing and Signaling: NPKS	
<i>Daniel P. Schachtman and Ryoung Shin</i>	47
Hydrogenases and Hydrogen Photoproduction in Oxygenic Photosynthetic Organisms	
<i>Maria L. Ghirardi, Matthew C. Posewitz, Pin-Ching Maness, Alexandra Dubini, Jianping Yu, and Michael Seibert</i>	71
Hidden Branches: Developments in Root System Architecture	
<i>Karen S. Osmont, Richard Sibout, and Christian S. Hardtke</i>	93
Leaf Senescence	
<i>Pyung Ok Lim, Hyo Jung Kim, and Hong Gil Nam</i>	115
The Biology of Arabinogalactan Proteins	
<i>Georg J. Seifert and Keith Roberts</i>	137
Stomatal Development	
<i>Dominique C. Bergmann and Fred D. Sack</i>	163
Gibberellin Receptor and Its Role in Gibberellin Signaling in Plants	
<i>Miyako Ueguchi-Tanaka, Masatoshi Nakajima, Ashikari Motoyuki, and Makoto Matsuoka</i>	183
Cyclic Electron Transport Around Photosystem I: Genetic Approaches	
<i>Toshiharu Shikanai</i>	199
Light Regulation of Stomatal Movement	
<i>Ken-ichiro Shimazaki, Michio Doi, Sarah M. Assmann, and Toshinori Kinoshita</i>	219

The Plant Heterotrimeric G-Protein Complex <i>Brenda R.S. Temple and Alan M. Jones</i>	249
Alternative Splicing of Pre-Messenger RNAs in Plants in the Genomic Era <i>Anireddy S.N. Reddy</i>	267
The Production of Unusual Fatty Acids in Transgenic Plants <i>Johnathan A. Napier</i>	295
Tetrapyrrole Biosynthesis in Higher Plants <i>Ryonichi Tanaka and Ayumi Tanaka</i>	321
Plant ATP-Binding Cassette Transporters <i>Philip A. Rea</i>	347
Genetic and Epigenetic Mechanisms for Gene Expression and Phenotypic Variation in Plant Polyploids <i>Z. Jeffrey Chen</i>	377
Tracheary Element Differentiation <i>Simon Turner, Patrick Gallois, and David Brown</i>	407
<i>Populus</i> : A Model System for Plant Biology <i>Stefan Jansson and Carl J. Douglas</i>	435
Oxidative Modifications to Cellular Components in Plants <i>Ian M. Møller, Poul Erik Jensen, and Andreas Hansson</i>	459

Indexes

Cumulative Index of Contributing Authors, Volumes 48–58	483
Cumulative Index of Chapter Titles, Volumes 48–58	488

Errata

An online log of corrections to *Annual Review of Plant Biology* chapters
(if any, 1997 to the present) may be found at <http://plant.annualreviews.org/>

